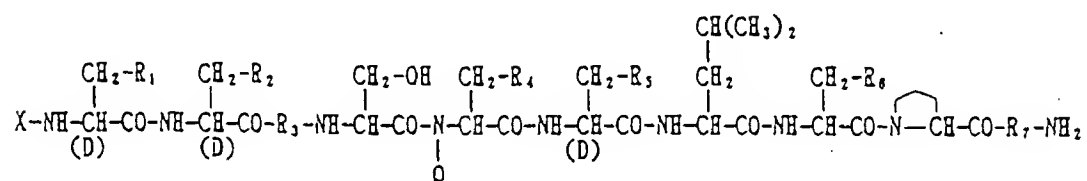


What is claimed is:

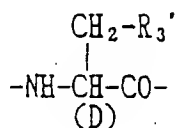
1. A sustained-release preparation which comprises a physiologically active peptide of the general formula



wherein X represents an acyl group;

$R_1$ ,  $R_2$  and  $R_4$  each represents an aromatic cyclic group;

R<sub>3</sub> represents a D-amino acid residue or a group of the formula



wherein  $R_3'$  is a heterocyclic group;

R<sub>5</sub> represents a group of the formula  $-(CH_2)_n-R_5'$  wherein n is 2 or 3 and R<sub>5</sub>' is an amino group which may optionally be substituted, an aromatic cyclic group or an O-glycosyl group;

R<sub>6</sub> represents a group of the formula -(CH<sub>2</sub>)<sub>n</sub>-R<sub>6</sub>' wherein n is 2 or 3 and R<sub>6</sub>' is an amino group which may optionally be substituted;

R<sub>i</sub> represents a D-amino acid residue or an azaglycyl residue; and

Q represents hydrogen or a lower alkyl group, or a salt thereof and a biodegradable polymer having a terminal carboxyl group.

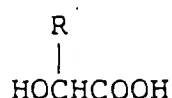
2. The sustained-release preparation according to claim 1, wherein X is a C<sub>2-7</sub> alkanoyl group which may optionally be substituted by a 5- or 6-membered heterocyclic carboxamido group.

3. The sustained-release preparation according to claim 2, wherein X is a C<sub>2-4</sub> alkanoyl group which may optionally be substituted by a

tetrahydrofurylcarboxamide group.

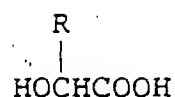
4. The sustained-release preparation according to claim 1, wherein X is acetyl.

5. The sustained-release preparation according to claim 1, wherein the biodegradable polymer is a mixture of (A) a copolymer of glycolic acid and a hydroxycarboxylic acid of the general formula



wherein R represents an alkyl group of 2 to 8 carbon atoms and (B) a polylactic acid.

6. The sustained-release preparation according to claim 1, wherein X is acetyl, and the biodegradable polymer is a mixture of (A) a copolymer of glycolic acid and a hydroxycarboxylic acid of the general formula



wherein R represents an alkyl group of 2 to 8 carbon atoms and (B) a polylactic acid.

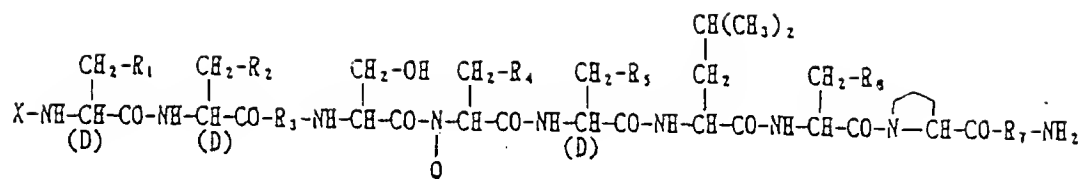
7. The sustained-release preparation according to claim 5, wherein the copolymer has a weight average molecular weight of about 2,000 to 50,000, as determined by GPC.

8. The sustained-release preparation according to claim 5, wherein the copolymer has a dispersion value of about 1.2 to 4.0.

9. The sustained-release preparation according to claim 5, wherein the polylactic acid has a weight average molecular weight of about 1,500 to 30,000 as determined by GPC.

10. The sustained-release preparation according to claim 5, wherein the polylactic acid has a dispersion value of about 1.2 to 4.0.

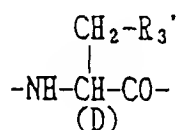
11. The sustained-release preparation according to claim 1, wherein the biodegradable polymer is a copolymer of lactic acid and glycolic acid.
12. The sustained-release preparation according to claim 11, wherein the copolymer has a weight average molecular weight of about 5,000 to 25,000, as determined by GPC.
13. The sustained-release preparation according to claim 11, wherein the copolymer has a dispersion value of about 1.2 to 4.0.
14. The sustained-release preparation according to claim 1, wherein the proportion of the physiologically active peptide ranges from about 0.01 to 50% (w/w) based on the biodegradable polymer.
15. The sustained-release preparation according to claim 1, wherein the physiologically active peptide is a LH-RH antagonist.
16. The sustained-release preparation according to claim 1, wherein the physiologically active peptide is  $\square_0$ CONHCH<sub>2</sub>COD<sub>2</sub>Nal-D<sub>4</sub>ClPhe-D<sub>3</sub>Pal-Ser-NMeTyr-DLys(Nic)-Leu-Lys(Nisp)-Pro-DAlaNH<sub>2</sub> or its acetate.
17. The sustained-release preparation according to claim 1, wherein the physiologically active peptide is NAcD<sub>2</sub>Nal-D<sub>4</sub>ClPhe-D<sub>3</sub>Pal-Ser-NMeTyr-DLys(Nic)-Leu-Lys(Nisp)-Pro-DAlaNH<sub>2</sub> or its acetate.
18. The sustained-release preparation according to claim 1, wherein the physiologically active peptide is NAcD<sub>2</sub>Nal-D<sub>4</sub>ClPhe-D<sub>3</sub>Pal-Ser-Tyr-DhArg(Et<sub>2</sub>)-Leu-hArg(Et<sub>2</sub>)-Pro-DAlaNH<sub>2</sub> or its acetate.
19. A method of producing a sustained-release preparation which comprises dissolving a physiologically active peptide of the general formula



wherein X represents an acyl group;

R<sub>1</sub>, R<sub>2</sub> and R<sub>4</sub> each represents an aromatic cyclic group;

R<sub>3</sub> represents a D-amino acid residue or a group of the formula



wherein R<sub>3</sub>' is a heterocyclic group;

R<sub>5</sub> represents a group of the formula -(CH<sub>2</sub>)<sub>n</sub>-R<sub>5</sub>' wherein n is 2 or 3, and R<sub>5</sub>' is an amino group which may optionally be substituted, an aromatic cyclic group or an O-glycosyl group;

R<sub>6</sub> represents a group of the formula -(CH<sub>2</sub>)<sub>n</sub>-R<sub>6</sub>' wherein n is 2 or 3, and R<sub>6</sub>' is an amino group which may optionally be substituted;

R<sub>7</sub> represents a D-amino acid residue or an azaglycyl residue; and

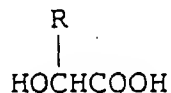
Q represents hydrogen or a lower alkyl group or a salt thereof and a biodegradable polymer having a terminal carboxyl group in a solvent which is substantially immiscible with water and then removing said solvent.

20. The method according to claim 19, wherein the biodegradable polymer is a mixture of (A) a copolymer of glycolic acid and a hydroxycarboxylic acid of the general formula



wherein R represents an alkyl group of 2 to 8 carbon atoms and (B) a polylactic acid.

21. The method according to claim 19, wherein X is acetyl, and the biodegradable polymer is a mixture of (A) a copolymer of glycolic acid and a hydroxycarboxylic acid of the general formula

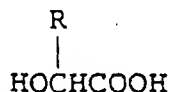


wherein R represents an alkyl group of 2 to 8 carbon atoms and (B) a polylactic acid.

22. The method according to claim 19, wherein the biodegradable polymer is a copolymer of lactic acid and glycolic acid.

23. A method according to claim 19, which comprises dissolving the biodegradable polymer and the physiologically active peptide in a solvent which is substantially immiscible with water and adding the resulting solution to an aqueous medium to provide an O/W emulsion.

24. A method of producing a sustained-release preparation which comprises dissolving a biodegradable polymer comprising a mixture of (A) a copolymer of glycolic acid and a hydroxycarboxylic acid of the general formula



wherein R represents an alkyl group of 2 to 8 carbon atoms and (B) a polylactic acid and a substantially water-insoluble physiologically active peptide or a salt thereof in a solvent which is substantially immiscible with water and then removing said solvent.

25. A method according to claim 24, which further comprises after dissolving the biodegradable polymer and the substantially water-insoluble peptide or salt thereof in the solvent adding the resulting solution to an aqueous medium to provide an O/W emulsion.